CS11–41
Yarns, cotton; moisture-regains

U. S. DEPARTMENT OF COMMERCE
JESSE H. JONES, Secretary
NATIONAL BUREAU OF STANDARDS
LYMAN J. BRIGGS, Director

onal Bureau of Standards
SEP 22 1941

MOISTURE REGAINS OF COTTON YARNS

(SECOND EDITION)

COMMERCIAL STANDARD CS11–41

Supersedes CS11–29

Effective from August 1, 1941

Reference book not to be taken from the Library.

A RECORDED VOLUNTARY STANDARD
OF THE TRADE

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PROMULGATION

of

COMMERCIAL STANDARD CS11–41

for

MOISTURE REGAINS OF COTTON YARNS

(Second Edition)

On January 15, 1929, at the instance of the National Association of Hosiery and Underwear Manufacturers, a general conference of representatives of manufacturers, mercerizers, distributors, and users of cotton yarn adopted a recommended Commercial Standard for moisture regain of mercerized cotton yarns, which was subsequently accepted by the trade and promulgated as Commercial Standard CS11–29.

On recommendation of the standing committee, a revision of the standard was submitted to the trade for acceptance on November 8, 1940. This revision broadens the scope to include a commercial moisture regain of cotton yarn (unmercerized); methods of test; and additional definitions. The revision has since been accepted by the trade for promulgation by the United States Department of Commerce through the National Bureau of Standards.

The standard is effective for determining invoice weights and adjustments of claims, from August 1, 1941.

Promulgation recommended.

I. J. Fairchild,
Chief, Division of Trade Standards.

Promulgated.

Lyman J. Briggs,
Director, National Bureau of Standards.

Promulgation approved.

Jesse H. Jones,
Secretary of Commerce.

MOISTURE REGAINS OF COTTON YARNS

(Second Edition)

COMMERCIAL STANDARD CS11–41

PURPOSE

1. The purpose of this Commercial Standard is to establish standard specifications and method of test for commercial moisture regains of cotton yarns for the guidance of producers, distributors, and users, and to provide a uniform basis for determining the "commercial weight."

SCOPE

2. The standard covers commercial moisture regains for mercerized and unmercerized cotton yarns, definitions, method of test, and tolerances, and illustrates the manner in which manufacturers and distributors may guarantee compliance with the Commercial Standard.

DEFINITIONS

3. *Moisture Regain.*—The term "moisture regain" for the purpose of this standard is defined as the difference between the weight of the cotton yarn as sampled (*Wo*) and its "dry weight" (*Wd*), expressed as a percentage of the "dry weight," that is,

$$\text{moisture regain} = \frac{Wo - Wd}{Wd} \times 100.$$

4. *Commercial Moisture Regain*—The term "commercial moisture regain" for the purpose of this standard is defined as the moisture regain formally adopted for use in calculating the "commercial weights" of shipments or deliveries of cotton yarns.

5. *Moisture Content.*—The term "moisture content" for the purpose of this standard is defined as the difference between the weight of the yarn as sampled (*Wo*) and its "dry weight" (*Wd*), expressed as a percentage of the original (sampled) weight, that is,

$$\text{moisture content} = \frac{Wo - Wd}{Wo} \times 100.$$

(The moisture content is equal to the moisture regain multiplied by the ratio of the "dry weight" to the original (sampled) weight of the yarn, that is, moisture regain $\times Wd/Wo$).

6. *Dry Weight.*—The term "dry weight" for the purpose of this standard is defined as the weight of cotton yarn dried in an oven at 221° to 230° F (105° to 110° C) until the weights of the yarn from two consecutive weighings, taken not less than 10 minutes apart, differ by not more than 0.1 percent of the first of the two weights.

7. *Commercial Weight.*—The term "commercial weight" for the purpose of this standard is defined as the dry weight of cotton yarn plus the weight equivalent to its commercial moisture regain.

REQUIREMENTS

8. The commercial moisture regain of *cotton yarn* (*unmercerized*) shall be 7 percent.

9. The invoice weight of *cotton yarn* (*unmercerized*) having a moisture regain below 6 or above 8 percent shall be adjusted by the seller or buyer, as the case may be, to "commercial weight." The invoice weight of such yarn having a moisture regain of 7 ± 1 percent shall not call for adjustment.

10. The commercial moisture regain of *mercerized cotton yarn* shall be 8½ percent.

11. The invoice weight of *mercerized cotton yarn* having a moisture regain below 7½ or above 9½ percent shall be adjusted by the buyer or seller, as the case may be, to "commercial weight." The invoice weight of such yarn having a moisture regain of $8\frac{1}{2} \pm 1$ percent shall not call for adjustment.

METHODS OF SAMPLING AND TESTS

12. Not less than three sample tubes, cones, or skeins of cotton yarn shall be taken from at least 1 package in every 10 packages or less delivered immediately after the delivery is weighed. Two of the three samples shall be taken from opposite sides and the third from near the center of the package.

13. The samples selected shall be taken from the packages and accurately weighed within a time limit of approximately 45 seconds. The weight of the cones or tubes shall be deducted to obtain the net weight of the yarn. If it is not practicable to weigh the samples at point of delivery, they shall be placed immediately in air-tight containers and forwarded to the laboratory at which test is to be made.

14. The method of sampling cotton yarns other than those in skeins or on tubes and cones shall be as mutually agreed on by the buyer and seller.

15. The samples for test with cones or tubes removed, shall be dried in an oven to dry weight (see paragraph 6) and the moisture regain calculated (see paragraph 3). The average of the moisture regains of the individual samples shall be considered the moisture regain of the entire lot represented by the samples.

GUARANTY

16. The following statement, which may be printed, typed, or stamped, or otherwise indicated on invoices, illustrates the manner in which cotton yarn manufacturers or distributors may guarantee that the invoiced weight is based on a moisture regain within the limits specified herein:

> The _____ guarantees that the weight of this _____ cotton yarn is based on a moisture regain within the limits of Commercial Standard CS11–41, as issued by the National Bureau of Standards, U. S. Department of Commerce.
>
> (mercerized) (unmercerized)

CALCULATIONS FOR ADJUSTMENTS

17. The following formulas are not to be considered a part of the Commercial Standard but are given for the convenience of those making adjustments in invoice weights.

Having determined the moisture regain of cotton yarn at time of delivery, the moisture regain of the cotton yarn at the time it was weighed for invoicing may be determined from the formula

$$R_1=\frac{W_1}{W_2}(100+R_2)-100.$$

18. If this calculated value of R_1 is not within the limits specified herein, the commercial weight may be determined from the formula

$$W=W_2\left(\frac{100+R}{100+R_2}\right)$$

In both formulas,

W=commercial weight in pounds.
W_1=invoiced weight in pounds.
W_2=delivered weight in pounds.
R=commercial moisture regain in percent.
R_1=moisture regain of yarn as invoiced, in percent.
R_2=moisture regain of yarn as delivered, in percent.

EFFECTIVE DATE

The standard is effective for determining invoice weights and adjustments of claims from August 1, 1941.

STANDING COMMITTEE

The following comprises the membership of the Standing Committee, which is to review, prior to circulation for acceptance, revisions proposed to keep the standard abreast of progress. Each organization nominated its own representatives. Comment concerning the standard and suggestions for revision may be addressed to any member of the committee or to the Division of Trade Standards, National Bureau of Standards, which acts as Secretary for the committee.

J. P. Holt (chairman), Mercerizers Association of America, c/o Aberfoyle Manufacturing Co., 123 South Broad Street, Philadelphia, Pa.

R. D. Hall, Stowe Thread Co., Belmont, N. C. Representing Cotton-Textile Institute, Inc.

Russell T. Fisher, president, National Association of Cotton Manufacturers, 80 Federal Street, Boston, Mass.

Charles H. Hamlin, Underwear Institute, c/o Utica Knitting Co., Utica, N. Y.

R. W. Webb, U. S. Department of Agriculture, Washington, D. C.

Leon S. Herbert, president, Herbert Hosiery Mills, Norristown, Pa.

E. M. Schenke, director of research, National Association of Hosiery Manufacturers, c/o National Bureau of Standards, Washington, D. C.

Ralph Y. Cooper, Coopers, Inc., Kenosha, Wisconsin. Representing Underwear Institute.

W. H. Suttenfield, secretary-treasurer, Superior Yarn Mills, Inc., Statesville, N. C. Representing Southern Combed Yarn Spinners Association.

E. N. Brower, Rockfish Mills, Hope Mills, N. C. Representing Carded Yarn Group.

HISTORY OF PROJECT

In 1927 E. M. Schenke, Research Associate at the National Bureau of Standards, representing the National Association of Hosiery and Underwear Manufacturers, after a careful scientific study of the moisture content and regain of mercerized cotton yarn, offered a report to that Association recommending a standard regain of 7.53 percent (7-percent moisture content). On October 3, 1928, the National Association of Hosiery and Underwear Manufacturers requested of the National Bureau of Standards that this report be established as a Commercial Standard to eliminate constant confusion and dispute as to the proper weight of mercerized yarn for the computation of buying and selling price.

Pursuant to this request, a general conference of representative producers, mercerizers, distributors, and users of cotton yarns was held on January 15, 1929, for the purpose of considering the proposed commercial standard as endorsed by the National Association of Hosiery and Underwear Manufacturers. The standard as modified by the conference was subsequently accepted by the trade, and issued by the National Bureau of Standards as Regain of Mercerized Cotton Yarns, Commercial Standard CS11–29, effective from July 1, 1929.

FIRST REVISION

Pursuant to inquiries received on the regain of cotton yarns (unmercerized), particularly those from an important cotton yarn distributing association, and on the recommendation of the Standing Committee, a revision of the standard was submitted to the trade for acceptance on November 8, 1940. The changes in CS11–29 include the addition of a commercial moisture regain for cotton yarns (unmercerized); definitions for commercial moisture regain, dry weight, and commercial weight; methods of test; and a recommended wording by which manufacturers and distributors may guarantee compliance with the Commercial Standard.

Following written acceptance by a satisfactory majority of manufacturers of unmercerized and mercerized cotton yarns, announcement of the success of the project was issued on June 30, 1941.

ACCEPTANCE OF COMMERCIAL STANDARD

If acceptance has not previously been filed, this sheet properly filled in, signed, and returned will provide for the recording of your organization as an acceptor of this Commercial Standard.

Date_____

Division of Trade Standards,
National Bureau of Standards,
Washington, D. C.

Gentlemen:

Having considered the statements on the reverse side of this sheet, we accept the Commercial Standard CS11–41 as our standard of practice for moisture regains in the

Production [1] Distribution [1] Use [1] Inspection [1]

of cotton yarns.

We will assist in securing its general recognition and use and will cooperate with the standing committee to effect revisions of the standard when necessary.

Signature of individual officer_____
(In ink)

(Kindly typewrite or print the following lines)

Name and title of above officer_____

Organization_____
(Fill in exactly as it should be listed)

Street address_____

City and State_____

[1] Please designate which group you represent by drawing lines through the other three. Please file separate acceptances for all subsidiary companies and affiliates which should be listed separately as acceptors. In the case of related interests, trade papers, colleges, etc., desiring to record their general approval, the words "in principle" should be added after the signature.

(Cut on this line)

TO THE ACCEPTOR

The following statements answer the usual questions arising in connection with the acceptance and its significance:

1. *Enforcement.*—Commercial Standards are commodity specifications voluntarily established by mutual consent of those concerned. They present a common basis of understanding between the producer, distributor, and consumer and should not be confused with any plan of governmental regulation or control. The United States Department of Commerce has no regulatory power in the enforcement of their provisions, but since they represent the will of the interested groups as a whole, their provisions through usage soon become established as trade customs, and are made effective through incorporation into sales contracts by means of labels, invoices, and the like.

2. *The acceptor's responsibility.*—The purpose of Commercial Standards is to establish for specific commodities, nationally recognized grades of consumer criteria and the benefits therefrom will be measurable in direct proportion to their general recognition and actual use. Instances will occur when it may be necessary to deviate from the standard and the signing of an acceptance does not preclude such departures; however, such signature indicates an intention to follow the Commercial Standard where practicable, in the production, distribution, or consumption of the article in question.

3. *The Department's responsibility.*—The major function performed by the Department of Commerce in the voluntary establishment of Commercial Standards on a Nation-wide basis is fourfold: first, to act as an unbiased coordinator to bring all interested parties together for the mutually satisfactory adjustment of trade standards; second, to supply such assistance and advice as past experience with similar programs may suggest; third, to canvass and record the extent of acceptance and adherence to the standard on the part of producers, distributors, and users; and fourth, after acceptance, to publish and promulgate the standard for the information and guidance of buyers and sellers of the commodity.

4. *Announcement and promulgation.*—When the standard has been endorsed by a satisfactory majority of production or consumption in the absence of active, valid opposition, the success of the project is announced. If, however, in the opinion of the standing committee or the Department of Commerce, the support of any standard is inadequate, the right is reserved to withhold promulgation and publication.

ACCEPTORS

The organizations and individuals listed below have accepted this specification as their standard of practice in the production, distribution, and use of unmercerized and mercerized cotton yarns. Such endorsement does not signify that they may not find it necessary to deviate from the standard, nor that producers and distributors so listed guarantee all of their products in this field to conform with the requirements of this standard. Therefore specific evidence of conformity should be obtained where required.

ASSOCIATIONS

Allied Underwear Association, New York, N. Y. (In principle.)
American Home Economics Association, Philadelphia, Pa.
Association of Cotton Yarn Distributors, Philadelphia, Pa.
Carded Yarn Group, The, Charlotte, N. C.
Cotton Thread Institute, Inc., The, New York, N. Y. (In principle.)
Mercerizers Association of America, New York, N. Y.
National Association of Cotton Manufacturers, Boston, Mass.
National Association of Hosiery Manufacturers, New York, N. Y.
National Retail Dry Goods Association, New York, N. Y.
Rhode Island Textile Association, Providence, R. I. (In principle.)

FIRMS

Aberfoyle Manufacturing Co., Philadelphia, Pa.
Acme Weaving Mills, Inc., Anniston, Ala.
Adelaide Mills, Anniston, Ala.
Alabama Mills, Inc., Birmingham, Ala.
Alabama Polytechnic Institute, Textile Department, Auburn, Ala. (In principle.)
Alba Twine Mills, Inc., Stanley, N. C.
Aldora Mills, Barnesville, Ga.
Algodon Manufacturing Co., Bessemer City, N. C.
Alox Manufacturing Co., St. Louis, Mo.
Alpine Cotton Mills, Morganton, N. C.
American Textile Co., Inc., Pawtucket, R. I.
American Thread Co., The, Yarn Department, New York, N. Y.
American Yarn & Processing Co., Mount Holly, N. C.
Anson Manufacturing Co., Wadesboro, N. C.
Appalachian Mills Co., Knoxville, Tenn.
Aragon Baldwin Mills, Whitmire, S. C.
Archer Co., Inc., A. W., New York, N. Y.
Atlanta Woolen Mills, Atlanta, Ga.
Avondale Mills, Sylacauga, Ala.
B-Z-B Knitting Co., Rockford, Ill.
Barkley Old Reliable Hosiery Mills, Cleveland, Ohio.
Bartex Spinning Co., Clayton, N. C.
Bauer & Black, Chicago, Ill.
Belmont Cotton Mills Co., Shelby, N.C.
Bibb Manufacturing Co., Macon, Ga.
Bike Web Manufacturing Co., Chicago, Ill.
Blumenthal & Co., Inc., Sidney, Shelton, Conn.
Bodinof, Chas., New York, N. Y.
Boger & Crawford, Philadelphia, Pa.
Bon Marché, The, Seattle, Wash.
Bonnie Cotton Mills, Kings Mountain, N. C.
Boott Mills, Lowell, Mass.
Borden Manufacturing Co., The, Goldsboro, N. C.
Boshamer & Co., Philadelphia, Pa.
Bowling Green Spinning Co., Clover, S. C.
Bradley Manufacturing Co., Columbus, Ga.
Brownell & Co., Inc., Moodus, Conn.
Buffalo Weaving & Belting Co., Buffalo, N. Y.
Bur-Bar Narrow Fabric Co., Valley Falls, R. I.
Burnett & Co., Wm. T., Baltimore, Md.
Caldwell Cotton Mills Co., Lenoir, N. C.
California Cotton Mills Co., Oakland, Calif. & Uniontown, Ala.
Callaway Mills, LaGrange, Ga.
Carlton Yarn Mills, Inc., Cherryville, N. C.
Carolina Mills, Inc., Maiden, N. C.
Carolina Textile Corporation, Charlotte, N. C.
Caroline Mills, Carrollton, Ga.
Caron Spinning Co., Rochelle, Ill.

Cheraw Cotton Mills, Inc., Cheraw, S. C.
China Grove Cotton Mills Co., China Grove, N. C.
Clemson Agricultural College, Clemson College, S. C.
Cleveland Mill & Power Co., Lawndale, N. C.
Collyer Insulated Wire Co., Pawtucket, R. I.
Columbia Narrow Fabric Co., Shannock R. I.
Columbus Yarns Co., West New York, N. J.
Conant Houghton Co., Littleton, Mass.
Conrad Manufacturing Co., The, Pawtucket, R. I.
Consumers Testing Laboratories, Philadelphia, Pa. (In principle.)
Conwell & Co., E. L., Philadelphia, Pa. (In principle.)
Coopers, Inc., Kenosha, Wis.
Cornish Wire Co., Inc., Paterson, N. J.
Cox & Fuller, New York, N. Y.
Cramerton Mills, Inc., Cramerton, N. C.
Crescent Insulated Wire & Cable Co., Inc., Trenton, N. J.
Cross Cotton Mills Co., Marion, N. C.
Crown Manufacturing Co., Pawtucket, R. I.
Dalglish & Co., Utica, N. Y.
Dana Warp Mills, Westbrook, Maine.
Danville Knitting Mills, Inc., Danville, Va.
Davis & Co., Charles C., Chicago, Ill.
Detroit Testing Laboratory, The, Detroit, Mich. (In principle.)
Diamond Braiding Mills, Inc., Chicago Heights, Ill.
Direct Sales Co., Utica, N. Y.
Dixie Mercerizing Co., Chattanooga, Tenn.
Double Shoals Mill Co., Shelby, N. C.
Dudley Shoals Cotton Mill Co., Granite Falls, N. C.
Durham Hosiery Mills, Durham, N. C.
Eckstein & Co., Inc., Albert, New York, N. Y.
Edenton Cotton Mills, Edenton, N. C.
Elizabeth City Cotton Mills, Elizabeth City, N. C.
Elk Cotton Mills, Fayetteville, Tenn.
Ensign Cotton Mills, Forsyth, Ga.
Ericksen Textile Co., Momence, Ill.
Erwin: Cotton Mills Co., The, Durham, N. C.
Esselen, Inc., Gustavus J., Boston, Mass.
Everlastik, Inc., Chelsea, Mass.
Falls Manufacturing Co., Granite Falls, N. C.
Field & Co., Marshall, Bedspread Department, Leaksville, N. C.
Firestone Cotton Mills, Inc., Gastonia, N. C. (In principle.)
Fisher, Moses, New York, N. Y.
Fitchburg Duck Mills, Fitchburg, Mass
Fogerty, Clifford V., New York, N. Y.
Forbes Co., Walter T., Chattanooga, Tenn.
Franklin Process Co., Providence, R. I.
French Textile School, A., Atlanta, Ga.
Frissell Fabric Co., The, Middletown, Conn. (In principle.)
Froehling & Robertson, Inc., Richmond, Va.
Frost & Son, Geo. T., Paterson, N. J.
Furman University, Greenville, S. C. (In principle.)
Galveston Laboratories, Galveston, Tex. (In principle.)
Gastonia Combed Yarn Corporation, Gastonia, N. C.
Gate City Cotton Mills, Atlanta, Ga.
Georgia Manufacturing Co., Columbus, Ga.
Gillingham, Dana H., New Bedford, Mass. (In principle.)
Glencairn Manufacturing Co., Pawtucket, R. I.
Globe Dye Works Co., Philadelphia, Pa.
Globe Mills Co., Mount Holly, N. C.
Globe Woven Belting Co., Buffalo, N. Y.
Good Housekeeping Institute, New York, N. Y.
Gordon Mills, Inc., North Wilkesboro, N. C.
Gossett Mills, Anderson, S. C.
Grand Rapids Fibre Cord Co., Grand Rapids, Mich.
Grantville Mills, Grantville, Ga.
Green River Mills, Inc., Tuxedo, N. C.
Greenville Spinners, Inc., Greenville, N. C.
Grier Mills, Inc., North Wilkesboro, N. C.
Groves Thread Co., Inc., Gastonia, N. C.
Habersham Mills, Habersham, Ga.
Hadley-Peoples Manufacturing Co., Siler City, N. C.
Hall & Cary Weaving & Belting Co., Inc., Lockport, N. Y.
Hampton Co., Easthampton, Mass.
Harriet Cotton Mills, Henderson, N. C.
Hart, P. B., Montreal, P. Q., Canada.
Hatch Textile Research, Inc., New York, N. Y.
Henderson Cotton Mills, Henderson, N. C.
Hill Spinning Co., Roseboro, N. C.
Hirsch, Inc., Stephen, Brooklyn, N. Y.
Holt-Williamson Manufacturing Co., Fayetteville, N. C.
Hooker & Sanders, Inc., New York, N. Y.
Hooper & Sons Co., Wm. E., Philadelphia, Pa.
Howell Manufacturing Co., Cherryville, N. C.

Hudson Cotton Manufacturing Co., Lenoir, N. C.
Hunt Co., Robert W., Chicago, Ill.
Industrial Yarn Corporation, New York, N. Y.
International Braid Co., Providence, R. I.
International Looms of New Jersey, Inc., Elizabeth, N. J.
International Thread Co., New York, N. Y.
J. &. J. Spinning Mill, Maiden, N. C.
Joliette Milling Co., Macon, Ga.
Jones Manufacturing Co., Humboldt, Tenn.
Kellogg Manufacturing Co., Inc., Westfield, Mass.
Kenworthy, John R., Amsterdam, N. Y.
King Cotton Mills Corporation, Richmond, Va.
Kings Mountain Manufacturing Co., Kings Mountain, N. C.
Knapp, E. W., Philadelphia, Pa.
Kraemer Hosiery Co., Nazareth, Pa.
Ladifabrics, Inc., New York, N. Y.
Lafayette College, Easton, Pa. (In principle.)
Lane Cotton Mills Co., New Orleans, La.
Lavonia Manufacturing Co., Lavonia, Ga.
Ledbetter Manufacturing Co., Rockingham, N. C.
Lehi Textile Corporation, Philadelphia, Pa. (In principle.)
Lenhart Manufacturing Co., Hamburg, Pa.
Lewis Thread Co., A., New York, N. Y.
Liledoun Mill, Taylorsville, N. C.
Linford Mills, Inc., Belmont, N. C.
Lola Mills, Inc., Stanley, N. C.
Long Beach, Better Business Bureau of, Long Beach, Calif.
Los Angeles Testing Laboratory, Los Angeles, Calif.
Mackintosh & Sons Co., D., Holyoke, Mass.
Macon Textiles, Inc., Macon, Ga.
Macy & Co., Inc., R. H., New York, N. Y.
Maish Co., The Chas. A., Cincinnati, Ohio. (In principle.)
Mandeville Mills, Carrollton, Ga.
Manville Jenckes Corporation, Manville, R. I.
Mauney Mills, Inc., Kings Mountain, N. C.
Mawson Hair Cloth Co., Inc., The John, Philadelphia, Pa.
May Hosiery Mills, Nashville, Tenn.
Mayo Mills, Inc., Kings Mountain, N. C.
McIntosh Mills, Inc., Newnan, Ga.
McLean Co., Andrew, Passaic, N. J.
Mebane Yarn Mills, Inc., Mebane, N. C.
Merrimack Manufacturing Co., Huntsville Plant, Huntsville, Ala. (In principle.)
Meyers & Co., Clarence L., Philadelphia, Pa.
Michigan Cotton Thread Co., Detroit, Mich.
Miner Laboratories, The, Chicago, Ill.
Minneapolis Knitting Works, Minneapolis, Minn. (In principle.)
Minnesota, University of, St. Paul, Minn.
Monarch Yarn Co., Inc., New York, N. Y.
Monroe Cotton Mills, Monroe, Ga. (In principle.)
Monroe Yarn & Supply Co., Brooklyn, N. Y.
Montgomery Co., The, Windsor Locks, Conn.
Moore Cotton Mills, Lenoir, N. C.
Morehead Cotton Mills, Spray, N. C.
Morgan Cotton Mills, Inc., Laurel Hill, N. C.
Morowebb Cotton Mills Co., Gastonia, N. C.
Moscow Yarn Mill, Hope Valley, R. I.
Muller & Co., L. P., Philadelphia, Pa.
Munitex Corporation, The, Paterson, N. J.
Murphy Co., G. C., McKeesport, Pa. (In principle.)
Myer Thread Manufacturing Co., Henry, Chicago, Ill.
Narrow Fabric Co., The, Reading, Pa.
Nashawena Mills, New Bedford, Mass.
Nashua Manufacturing Co., Nashua, N. H.
National Filter Cloth & Weaving Co., The, New Haven, Conn.
Neely Cotton Mills, Inc., York, S. C.
Neisler Mills, Inc., Kings Mountain, N. C.
New Orleans, Inc., Better Business Bureau of, New Orleans, La. (In principle.)
Neway Brush Co., Hartford, Conn.
Newnan Cotton Mills, Newnan, Ga.
Niagara Textile Co., Lockport, N. Y.
Nice, Paul S., Denver, Colo. (In principle.)
North Carolina State College, Textile School, Raleigh, N. C. (In principle.)
Nutting Co., H. C., Cincinnati, Ohio.
Nuway Spinning Co., Inc., Cherryville, N. C.
Odell Manufacturing Co., The J. M., Pittsboro, N. C.
Orthmann Laboratories, Inc., The, Milwaukee, Wis. (In principle.)
Ottawa University, Ottawa, Kans. (In principle.)
Oxford Cotton Mills, Oxford, N. C.
Palmer Co., The I. E., Middletown, Conn.
Paola Cotton Mills, Inc., Statesville, N. C.

Parsons & Baker Co., The, Phoenixville, Pa.
Peace Dale Braiding Co., Shannock, R. I.
Pendleton Manufacturing Co., La France, S. C.
Pennsylvania Plush Weavers, Inc., Easton, Pa.
Pennsylvania State College, The, Ellen H. Richards Institute, State College, Pa. (In principle.)
Pepperell Braiding Co., East Pepperell, Mass.
Pepperell Manufacturing Co., Boston, Mass.
Perfection Spinning Co., Belmont, N. C.
Perry Fergus, Philadelphia, Pa.
Phenix Mills, Inc., Kings Mountain, N. C.
Phoenix Dye Works, Chicago, Ill.
Pittsfield Weaving Co., Inc., Pittsfield, N. H.
Ponemah Mills, Taftville, Conn.
Porter Textiles, Francis J., Utica, N. Y.
Postex Cotton Mills, Post, Tex.
Profile Cotton Mills, Jacksonville, Ala.
Rayon Publishing Corporation, New York, N. Y. (In principle.)
Rayon Textile Monthly, New York, N. Y. (In principle.)
Real Silk Hosiery Mills, Inc., Indianapolis, Ind.
Rex-Hanover Mills Co., Gastonia, N. C.
Richmond Hosiery Mills, Rossville, Ga.
Riverside and Dan River Cotton Mills, Inc., Danville, Va.
Riverside Lace & Braid Co., Riverside, R. I.
Rockfish Mills, Inc., Hope Mills, N. C.
Rocky Mount Mills, Rocky Mount, N. C.
Rogers & Co., Inc., Charles P., Long Island City, N. Y.
Roswell Mills, Inc., Roswell, Ga.
Rowan Cotton Mills Co., Salisbury, N. C.
Roxboro Cotton Mills, Roxboro, N. C.
Royal Cotton Mill Co., Wake Forest, N. C.
Ruby Cotton Mills, Inc., Gastonia, N. C.
Russell Manufacturing Co., The, Middletown, Conn.
Sacramento, Better Business Bureau of, Sacramento, Calif. (In principle.)
St. Louis Sampling & Testing Works, St. Louis, Mo.
Saylor Electric Products Corporation, Detroit, Mich.
Sexton, Inc., J. R., Meriden, Conn.
Shamrock Damask Mills, Landrum, S. C.
Silk & Rayon Weekly, Westwood, N. J. (In principle.)
Skinner & Sherman, Inc., Boston, Mass. (In principle.)
Smyre Manufacturing Co., A. M., Gastonia, N. C.
Snell, Inc., Foster D., Brooklyn, N. Y.
South Dakota Agriculture Experiment Station, Brookings, S. Dak. (In principle.)
South Park Manufacturing Co., Belmont, N. C.
Southern Weaving Co., Greenville, S. C.
Southern Webbing Mills, Inc., The, Greensboro, N. C.
Spray Cotton Mills, Spray, N. C.
Standard-Coosa-Thatcher Co., Chattanooga, Tenn.
Statesville Cotton Mills, Statesville, N. C.
Steel Heddle Manufacturing Co., Philadelphia, Pa.
Stelter, H., New York, N. Y.
Sterling Cotton Mills, Inc., Franklinton, N. C.
Stillman & Van Siclen, Inc., New York, N. Y. (In principle.)
Stowe Mills, Inc., McAdenville, N. C.
Stowe Thread Co., Belmont, N. C.
Strasburger and Siegel, Baltimore, Md. (In principle.)
Straus Knitting Mills, St. Paul, Minn.
Stromberg-Carlson Telephone Manufacturing Co., Rochester, N. Y.
Suncook Mills, Suncook, N. H.
Superior Yarn Mills, Inc., Mount Holly, N. C.
Swift Spinning Mills, Columbus, Ga.
Syracuse University, College of Applied Science, Syracuse, N. Y. (In principle.)
Talladega Cotton Factory, Talladega, Ala.
Texas Technological College, Textile Engineering Department, Lubbock, Tex. (In principle.)
Textile Testing & Research Laboratories, New York, N. Y.
Textiles, Inc., Gastonia, N. C.
Thies Dyeing Mills, Inc., West Warwick, R. I.
Threads, Inc., Gastonia, N. C.
Tifton Cotton Mills, Tifton, Ga.
Tillinghast, Stiles, Co., The, Providence, R. I.
Titherington, Archie, Philadelphia, Pa.
Trio Manufacturing Co., Forsyth, Ga.
Tufts College, Medford, Mass. (In principle.)
Union Manufacturing Co., Union Point, Ga.
United Elastic Corporation, Easthampton, Mass.
United States Lace Curtain Mills, New York, N. Y.
United States Rubber Co., (Fisk Cord Mills), New Bedford, Mass.
United States Testing Co., Inc., Hoboken, N. J. (In principle.)
Valdese Manufacturing Co., Valdese, N. C.
Villa Rica Mills, Inc., Villa Rica, Ga.

Virginia Manufacturing Co., Fountain Inn, S. C.
Virginia Polytechnic Institute, Blacksburg, Va. (In principle.)
Warren Thread Works, W., Westfield, Mass.
Wauregan-Quinebaug Mills, Inc., Wauregan, Conn.
Waverly Mills, Inc., Laurinburg, N. C.
Wehadkee Yarn Mills, West Point, Ga.
Wellington Mills, Inc., Anderson, S. C.
Wellington Sears Co., New York, N. Y.
West Boylston Manufacturing Co. of Alabama, Montgomery, Ala.
West Coast Trimmings Co., Inc., Los Angeles, Calif. (In principle.)
Wheeler Braid & Novelty Co., Arthur C., East Norwalk, Conn.
Whitney Blake Co., The, Hamden, Conn.
Wilson Cotton Mills Co., Wilson, N. C
Winne & Son, Inc., Frank W., Philadelphia, Pa.
Wolfinger, A. W., Hoboken, N. J., South Boston, Va. & Reading, Pa.
Worsted Yarns Corporation, New York, N. Y.
York Mills, Inc., York, S. C.

U. S. GOVERNMENT

Agriculture, Department of, Agricultural Marketing Service, Washington, D. C. (In principle.)

COMMERCIAL STANDARDS

CS No. Item

0–40. Commercial standards and their value to business (third edition).
1–32. Clinical thermometers (second edition).
2–30. Mopsticks.
3–40. Stoddard solvent (third edition).
4–29. Staple porcelain (all-clay) plumbing fixtures.
5–40. Pipe nipples; brass, copper, steel, and wrought iron.
6–31. Wrought-iron pipe nipples (second edition). Superseded by CS5–40.
7–29. Standard weight malleable iron or steel screwed unions.
8–41. Gage blanks (third edition).
9–33. Builders' template hardware (second edition).
10–29. Brass pipe nipples. Superseded by CS5–40.
11–41. Moisture regains of cotton yarns (second edition).
12–40. Fuel oils (fifth edition).
13–39. Dress patterns (second edition).
14–39. Boys' button-on waists, shirts, junior and polo shirts (made from woven fabrics) (second edition).
15–29. Men's pajamas.
16–29. Wall paper.
17–42. Diamond core drill fittings (third edition).
18–29. Hickory golf shafts.
19–32. Foundry patterns of wood (second edition).
20–36. Staple vitreous china plumbing fixtures (second edition).
21–39. Interchangeable ground-glass joints, stopcocks, and stoppers (fourth edition).
22–40. Builders' hardware (nontemplate) (second edition).
23–30. Feldspar.
24–30. Standard screw threads.
25–30. Special screw threads.
26–30. Aromatic red cedar closet lining.
27–36. Mirrors (second edition).
28–32. Cotton fabric tents, tarpaulins, and covers.
29–31. Staple seats for water-closet bowls.
30–31. Colors for sanitary ware.
31–38. Wood shingles (fourth edition).
32–31. Cotton cloth for rubber and pyroxylin coating.
33–32. Knit underwear (exclusive of rayon).
34–31. Bag, case, and strap leather.
35–31. Plywood (hardwood and eastern red cedar).
36–33. Fourdrinier wire cloth (second edition).
37–31. Steel bone plates and screws.
38–32. Hospital rubber sheeting.
39–37. Wool and part wool blankets (second edition) (Withdrawn as commercial standard, July 14, 1941).
40–32. Surgeons' rubber gloves.
41–32. Surgeons' latex gloves.
42–35. Fiber insulating board (second edition).
43–32. Grading of sulphonated oils.
44–32. Apple wraps.
45–40. Douglas fir plywood (domestic grades) (fourth edition).
46–40. Hosiery lengths and sizes (third edition).
47–34. Marking of gold-filled and rolled-gold-plate articles other than watch cases.
48–40. Domestic burners for Pennsylvania anthracite (underfeed type) (second edition).
49–34. Chip board, laminated chip board, and miscellaneous boards for bookbinding purposes.
50–34. Binders board for bookbinding and other purposes.
51–35. Marking articles made of silver in combination with gold.
52–35. Mohair pile fabrics (100-percent mohair plain velvet, 100-percent mohair plain frieze, and 50-percent mohair plain frieze).
53–35. Colors and finishes for cast stone.
54–35. Mattresses for hospitals.
55–35. Mattresses for institutions.
56–41. Oak flooring (second edition).
57–40. Book cloths, buckrams, and impregnated fabrics for bookbinding purposes except library bindings (second edition).
58–36. Woven elastic fabrics for use in overalls (overall elastic webbing).
59–41. Woven textile fabrics—testing and reporting (third edition).
60–36. Hardwood dimension lumber.
61–37. Wood-slat venetian blinds.
62–38. Colors for kitchen accessories.
63–38. Colors for bathroom accessories.
64–37. Walnut veneers.
65–38. Wool and part-wool fabrics.
66–38. Marking of articles made wholly or in part of platinum.
67–38. Marking articles made of karat gold.
68–38. Liquid hypochlorite disinfectant, deodorant, and germicide.
69–38. Pine oil disinfectant.
70–41. Phenolic disinfectant (emulsifying type) (second edition) (published with CS71–41).
71–41. Phenolic disinfectant (soluble type) (second edition) (published with CS70–41).
72–38. Household insecticide (liquid spray type).
73–38. Old growth Douglas fir standard stock doors.
74–39. Solid hardwood wall paneling.
75–39. Automatic mechanical-draft oil burners designed for domestic installations.
76–39. Hardwood interior trim and molding.
77–40. Sanitary cast-iron enameled ware.
78–40. Ground-and-polished lenses for sun glasses (second edition) (published with CS79–40).
79–40. Blown, drawn, and dropped lenses for sun glasses (second edition) (published with CS78–40).
80–41. Electric direction signal systems other than semaphore type for commercial and other vehicles subject to special motor vehicle laws (after market).
81–41. Adverse-weather lamps for vehicles (after market).
82–41. Inner-controlled spot lamps for vehicles (after market).
83–41. Clearance, marker, and identification lamps for vehicles (after market).
84–41. Electric tail lamps for vehicles (after market).
85–41. Electric license-plate lamps for vehicles (after market).
86–41. Electric stop lamps for vehicles (after market).
87–41. Red electric warning lanterns.
88–41. Liquid-burning flares.
89–40. Hardwood stair treads and risers.
90– . (Reserved for power shovels and cranes).
91–41. Factory fitted Douglas fir entrance doors.
92–41. Cedar, cypress, and redwood tank stock lumber.
93–41. Portable electric drills (exclusive of high frequency).
94–41. Calking lead.
95–41. Lead pipe.
96–41. Lead traps and bends.

NOTICE.—Those interested in commercial standards with a view toward accepting them as a basis of everyday practice may secure copies of the above standards, while the supply lasts, by addressing the Division of Trade Standards, National Bureau of Standards, Washington, D. C.

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